

WHAT IS CLAIMED IS:

1. A printer head in which a line head is constituted by a plurality of head chips arranged side by side in a printing line direction, and each having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said second head chip are different from each other.

2. A printer head according to Claim 1, wherein the interval between nozzles of said discharging portions in said overlapping section of said first head chip and the interval between nozzles of said discharging portions in said overlapping section of said second head chip are different from each other.

3. A printer head according to Claim 1, wherein the interval between heaters of said discharging portions in

said overlapping section of said first head chip and the interval between heaters of said discharging portions in said overlapping section of said second head chip are different from each other.

4. A printer head according to Claim 1, wherein the landing interval between ink droplets discharged from said discharging portions in said overlapping section is more than the landing interval between ink droplets discharged from said discharging portions outside said overlapping section in one of said first head chip and said second head chip, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section is less than the landing interval between ink droplets discharged from said discharging portions outside said overlapping section in the other head chip.

5. A printer head according to Claims 1, wherein the landing interval between ink droplets discharged from said discharging portions including said discharging portions in said overlapping section is fixed in one of said first head chip and said second head chip, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of the other head chip

is different from the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said one head chip.

6. A printer head according to Claim 1, further comprising:

discharging-portion information storage means which stores information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip.

7. A printer head in which a line head is constituted by a plurality of head chips arranged side by side in a printing line direction, and each having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said discharging portions in an overlapping section of said second head chip are different from each other, and the landing interval between ink droplets discharged from said

discharging portions in said overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said second head chip are different from each other.

8. A printer head according to Claim 7, wherein the interval between heaters of said discharging portions in said overlapping section of said first head chip and the interval between heaters of said discharging portions in said overlapping section of said second head chip are different from each other.

9. A printer head according to Claim 7, wherein the landing interval between ink droplets discharged from said discharging portions in said overlapping section is more than the landing interval between ink droplets discharged from said discharging portions outside said overlapping section in one of said first head chip and said second head chip, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section is less than the landing interval between ink droplets discharged from said discharging portions outside said overlapping section in the other head chip.

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10. A printer head according to Claim 7, wherein the landing interval between ink droplets discharged from said discharging portions including said discharging portions in said overlapping section is fixed in one of said first head chip and said second head chip, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of the other head chip is different from the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said one head chip.

11. A printer head according to Claim 7, further comprising:

discharging-portion information storage means which stores information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip.

12. A printer head in which a line head is constituted by a plurality of head chips arranged side by side in a printing line direction, and each having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet, wherein a plurality of

discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said discharging portions in an overlapping section of said second head chip are different from each other, the interval between heaters of said discharging portions in said overlapping section of said first head chip and the interval between heaters of said discharging portions in said overlapping section of said second head chip are different from each other, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said second head chip are different from each other.

13. A printer head according to Claim 12, wherein the landing interval between ink droplets discharged from said discharging portions in said overlapping section is more than the landing interval between ink droplets discharged from said discharging portions outside said overlapping section in one of said first head chip and said second head chip, and the landing interval between ink droplets

discharged from said discharging portions in said overlapping section is less than the landing interval between ink droplets discharged from said discharging portions outside said overlapping section in the other head chip.

14. A printer head according to Claims 12, wherein the landing interval between ink droplets discharged from said discharging portions including said discharging portions in said overlapping section is fixed in one of said first head chip and said second head chip, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of the other head chip is different from the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said one head chip.

15. A printer head according to Claim 12, further comprising:

discharging-portion information storage means which stores information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip.

16. A printer head having a plurality of head chips which are arranged side by side and each of which has a plurality of discharging portions aligned so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said second head chip are different from each other.

17. A printer head according to Claim 16, wherein the interval between nozzles of said discharging portions in said overlapping section of said first head chip and the interval between nozzles of said discharging portions in said overlapping section of said second head chip are different from each other.

18. A printer head according to Claim 16, wherein the interval between heaters of said discharging portions in said overlapping section of said first head chip and the interval between heaters of said discharging portions in said overlapping section of said second head chip are



different from each other.

19. A printer head according to Claim 16, wherein the landing interval between ink droplets discharged from said discharging portions in said overlapping section is more than the landing interval between ink droplets discharged from said discharging portions outside said overlapping section in one of said first head chip and said second head chip, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section is less than the landing interval between ink droplets discharged from said discharging portions outside said overlapping section in the other head chip.

20. A printer head according to Claims 16, wherein the landing interval between ink droplets discharged from said discharging portions including said discharging portions in said overlapping section is fixed in one of said first head chip and said second head chip, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of the other head chip is different from the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said one head chip.

21. A printer head according to Claim 16, further comprising:

discharging-portion information storage means which stores information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip.

22. A printer having a printer head in which a line head is constituted by a plurality of head chips arranged side by side in a printing line direction, and each having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said second head chip are different from each other.

23. A printer according to Claim 22, further comprising:

discharging-portion information storage means for storing information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip;

discharging-portion information reading means for reading information concerning said discharging portions to be used for printing which information is stored in said discharging-portion information storage means; and

discharging control means for controlling the discharging of ink droplets from said overlapping discharging portions of said printer head, based on the information read by said discharging-portion information reading means.

24. A printer having a printer head in which a line head is constituted by a plurality of head chips arranged side by side in a printing line direction, and each having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said

discharging portions in an overlapping section of said second head chip are different from each other, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said second head chip are different from each other.

25.. A printer according to Claim 24, further comprising:

discharging-portion information storage means for storing information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip;

discharging-portion information reading means for reading information concerning said discharging portions to be used for printing which information is stored in said discharging-portion information storage means; and

discharging control means for controlling the discharging of ink droplets from said overlapping discharging portions of said printer head, based on the information read by said discharging-portion information reading means.

26. A printer having a printer head in which a line head is constituted by a plurality of head chips arranged side by side in a printing line direction, and each having a plurality of discharging portions aligned in the printing line direction so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, the interval between nozzles of said discharging portions in an overlapping section of said first head chip and the interval between nozzles of said discharging portions in an overlapping section of said second head chip are different from each other, the interval between heaters of said discharging portions in said overlapping section of said first head chip and the interval between heaters of said discharging portions in said overlapping section of said second head chip are different from each other, and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in said overlapping section of said second head chip are different from each other.

27. A printer according to Claim 26, further

comprising:

discharging-portion information storage means for storing information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip;

discharging-portion information reading means for reading information concerning said discharging portions to be used for printing which information is stored in said discharging-portion information storage means; and

discharging control means for controlling the discharging of ink droplets from said overlapping discharging portions of said printer head, based on the information read by said discharging-portion information reading means.

28. A printer head having a plurality of head chips which are arranged side by side and each of which has a plurality of discharging portions aligned so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said first head chip and the landing interval between ink

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droplets discharged from said discharging portions in an overlapping section of said second head chip are different from each other.

29. A printer according to Claim 28, further comprising:

discharging-portion information storage means for storing information about discharging portions to be used for printing, of said plurality of discharging portions in said overlapping sections of said first head chip and said second head chip;

discharging-portion information reading means for reading information concerning said discharging portions to be used for printing which information is stored in said discharging-portion information storage means; and

discharging control means for controlling the discharging of ink droplets from said overlapping discharging portions of said printer head, based on the information read by said discharging-portion information reading means.

30. A driving method for a printer head in which a line head is constituted by a plurality of head chips arranged side by side in a printing line direction, and each having a plurality of discharging portions aligned in the

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printing line direction so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an adjoining portion therebetween are placed so as to overlap, the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said second head chip are different from each other, and said first head chip and said second head chip are driven so as to switch the discharging of ink droplets from said discharging portions of said first head chip to the discharging of ink droplets from said discharging portions of said second head chip at a position where the interval between the landing position of an ink droplet from a specific discharging portion of said first head chip and the landing position of an ink droplet from a specific discharging portion of said second head chip is closest to the interval in the printing line direction between landing positions of ink droplets from said discharging portions outside said overlapping section of said first head chip or said second head chip.

31. A printer-head driving method according to Claim 30, wherein said first head chip and said second head chip



are driven so as to switch the discharging of ink droplets from said discharging portions of said first head chip to the discharging of ink droplets from said discharging portions of said second head chip at a position where the interval in the printing line direction between the landing position of an ink droplet from a specific discharging portion of said first head chip and the landing position of an ink droplet from a specific discharging portion of said second head chip is closest to the interval in the printing line direction between the landing positions of ink droplets from said discharging portions outside said overlapping section of said first head chip or said second head chip when discharging of ink droplets is shifted by at least one discharging portion in said discharging portions in said overlapping section of one of said first head chip and said second head chip, and so as to shift discharging data on ink droplets from said discharging portions in said overlapping section of one of said first head chip and said second head chip by at least one discharging portion.

32. A printer head having a plurality of head chips which are arranged side by side and each of which has a plurality of discharging portions aligned so as to discharge an ink droplet, wherein a plurality of discharging portions of a first head chip and a second head chip placed at an

adjoining portion therebetween are placed so as to overlap, the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said first head chip and the landing interval between ink droplets discharged from said discharging portions in an overlapping section of said second head chip are different from each other, and said first head chip and said second head chip are driven so as to switch the discharging of ink droplets from said discharging portions of said first head chip to the discharging of ink droplets from said discharging portions of said second head chip at a position where the interval between the landing position of an ink droplet from a specific discharging portion of said first head chip and the landing position of an ink droplet from a specific discharging portion of said second head chip is closest to the interval in the printing line direction between landing positions of ink droplets from said discharging portions outside said overlapping section of said first head chip or said second head chip.

33. A printer-head driving method according to Claim 32, wherein said first head chip and said second head chip are driven so as to switch the discharging of ink droplets from said discharging portions of said first head chip to the discharging of ink droplets from said discharging

portions of said second head chip at a position where the interval in the printing line direction between landing position of an ink droplet from a specific discharging portion of said first head chip and the landing position of an ink droplet from a specific discharging portion of said second head chip is closest to the interval in the printing line direction between the landing positions of ink droplets from said discharging portions outside said overlapping section of said first head chip or said second head chip when discharging of ink droplets is shifted by at least one discharging portion in said discharging portions in said overlapping section of one of said first head chip and said second head chip, and so as to shift discharging data on ink droplets from said discharging portions in said overlapping section of one of said first head chip and said second head chip by at least one discharging portion.

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